



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/980,677 | 10/31/2001 | Isao Sakurai | | 4260 |

7590 08/26/2003
Brinks Hofer Gilson & Lione
PO Box 10395
Chicago, IL 60610

EXAMINER

EGAN, BRIAN P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1772

DATE MAILED: 08/26/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/980,677 | Applicant(s) SAKURAI ET AL. | |
| | Examiner Brian P. Egan | Art Unit 1772 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 33-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Information Request

1. The Examiner respectfully requests the Applicant to submit a copy of the testing procedure SEMI G67-0996 so that it may be placed on the record (note that although the Applicant stated in his remarks (paper no. 9) that a copy of the testing procedure was provided, the Examiner is unable to locate this submission).

Claim Objections

2. Claim 33 is objected to because of the following grammatical informality: under subpart (b), the phrase “the pressure sensitive adhesive sheet and comprising...” should be amended to read “the pressure sensitive adhesive sheet comprising...” to facilitate clarity. Appropriate correction is required.
3. Claim 34 is objected to because of the following grammatical informality: the phrase “the pressure sensitive adhesive sheet contains is less than...” should be amended to read “the pressure sensitive adhesive sheet contains less than...” to facilitate clarity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 35 is rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention.

Art Unit: 1772

The limitation, "wherein an amount of gas generated from the pressure sensitive adhesive sheet at a temperature of 85°C for 30 minutes is equal to or less than 20mg/m²," is a process limitation and is not germane to the issue of patentability of the device itself absent a demonstration of unexpected results. Therefore, this limitation has not been given patentable weight. Proper clarification and/or correction are required.

6. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as his invention. It is unclear whether the Applicant is attempting to claim that the total sum of all NOX, Cl, PO₄, K, F, Na, and Ca to be less than 20 mg per square meter as was previously claimed in canceled claims 14 and 15 and detailed in the specification. As currently worded, Claim 36 allows for any sum of ions to be less than 20 mg per square meter to be in accordance with the Applicant's claimed invention. For example, insofar as the sum of NOX ions is less than 20 mg per square meter in a prior art reference, the claimed limitation is anticipated. Proper clarification and/or correction are required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 33-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-245932 in view of Meyer (#6,228,449).

JP '932 teaches a pressure sensitive adhesive sheet comprising a base (see Abstract, Fig. 1, #1) and a pressure sensitive adhesive layer (see Abstract, Fig. 1, #3) provided on the base. The base is formed from a plastic film (see translation, p.2, paragraph [0009]). The pressure sensitive adhesive sheet further comprises an antistatic layer between the pressure sensitive layer and base layer (see Abstract, Fig. 1, #2). The antistatic layer is composed of a thin film of a metal oxide (see Abstract). The resistivity of the antistatic layer is in the range of $1 \times 10^7 - 10^{14} \Omega$ (see translation, p.6, Table 1). JP '932 discloses the use of an acrylic adhesive layer (see Translation, p.3, paragraph [0014]). JP '932 does not disclose that the adhesive comprises silicone, No_x^- , Cl^- , PO_4^{3-} , K^+ , F^- , Na^+ , or Ca^{2+} . Therefore, the adhesive layer is free of the aforementioned elements. The burden is upon the applicant to prove otherwise. JP '932 teaches proposed uses of the adhesive sheet which include the use of the sheet for electronic equipment and semiconductor parts (see Translation, p.1, paragraph [0001]).

JP '932 fails to teach the use of a release layer with a releasing agent comprising copolymers of olefin-based thermoplastic elastomers and polyethylene resins.

Meyer, however, teaches the use of a release film that is free of silicone and comprises a copolymer of ethylene and alpha-olefins (Col. 1, line 59 to Col. 2, line 5). The copolymer has a density less than 0.9 g/cc (Col. 2, lines 9-15) and the composition of the copolymer can be modified around the 50:50 ratio depending on the desired end product (Col. 2, lines 22-35). Meyer teaches that release films are notoriously well known in the adhesive tape industry for the purpose of providing a release surface so that a tape can be wound and unwound from a roll without the adhesive sticking to the backside of the tape (Col. 1, lines 9-15). Meyer specifically teaches away from the use of silicone release agents for the purpose of preventing the use of a

Art Unit: 1772

material (silicone) that is easily transferred between the component surfaces as well as the users hands that ultimately results in poor adhesive and physical properties of the product (Col. 1, lines 22-32) – thereby implicitly teaching the elimination of “generated particles” from the interaction between the release layer and adhesive layer. It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have modified an adhesive sheet by using a release sheet that is free of silicone for the purpose of not only protecting the adhesive surface and facilitating the winding and unwinding of the adhesive substrate but also to prevent contamination via silicone transfer between components as taught by Meyer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified JP ‘932 to include a silicone-free release liner as taught by Meyer in order to protect the adhesive surface, facilitate winding and unwinding of the adhesive substrate, and to prevent contamination via silicone transfer between components.

Response to Arguments

9. Applicant's arguments filed June 13, 2003 have been fully considered but they are not persuasive.

The Examiner first notes that the 35 U.S.C. 112, first and second paragraph rejections from the previous office action have been withdrawn pursuant to the Applicant's amended claims.

Second, with regards to the Applicant's contentions that the cited references do not disclose or teach the claimed features of the Applicant's invention, the Examiner respectfully disagrees.

Art Unit: 1772

With regards to the Applicant's contention that the aforementioned prior art does not teach a means for suppressing the generation of particles, the limitation on which the Applicant relies, i.e., a means for suppressing particle generation, is not stated in the claims. It is not even clear what the Applicant is defining these "means" to be. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064.

The Applicant further contends that the aforementioned prior art fails to teach a minimal level of generated particles. The Examiner agrees that there is no specific level of generated particles defined in the aforementioned prior art, but as stated above, Meyer ('449) implicitly teaches that generated particles are eliminated since Meyer explicitly teaches a composition that fails to perform like silicone wherein silicone liners generate particles that are transferred to electrical equipment and the hands of the users (see Col. 1, lines 22-32). Furthermore, Meyer teaches an equivalent material composition of the releasing agent layer to that claimed by the applicants and thus it would have been obvious that the two materially equivalent layers are functionally equivalent as well with regards to eliminating and/or minimizing generated particles.

The Applicant also contends that the aforementioned prior art fails in providing a method for determining the amount of generated particles. This contention, however, is irrelevant. The method of measuring is not germane to the patentability of the article itself. Therefore, this process limitation has not been given patentable weight. For example, the fact that two equivalent articles may have varying physical properties due to different measuring equipment being used does not patentably distinguish the two articles.

Art Unit: 1772

Finally, the Applicant contends that the aforementioned prior art fails to detail the advantages of limiting the particle generation. The Examiner respectfully disagrees. Meyer explicitly teaches that it is undesirable to have generated particles and that silicone release surfaces are known to generate particles that adversely affect the work environment. Therefore, Meyer teaches that it is advantageous to eliminate transferred particles in order to protect the adhesive surface, facilitate winding and unwinding of adhesive substrates, and to prevent contamination via silicone transfer between components.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

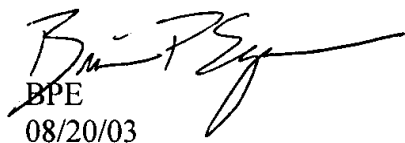
Art Unit: 1772

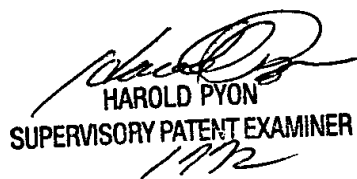
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


BPE
08/20/03


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1/12

8/22/03